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EXAMINER
BLOUNT, STEVEN

ART UNIT	PAPER NUMBER
2661	6

DATE MAILED: 07/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)
09/477,365	Lai
Examiner	**Group Art Unit**
BLOUNT	2661

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

☐ Responsive to communication(s) filed on 6/5/03

☐ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

☒ Claim(s) 1-28 ~~is~~/are pending in the application.

Of the above claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-28 ~~is~~/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 11 9(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 1 7.2(a)).

*Certified copies not received: _____.

Attachment(s)

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 2

☒ Notice of Reference(s) Cited, PTO-892

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Interview Summary, PTO-413

☐ Notice of Informal Patent Application, PTO-152

☐ Other _____

Office Action Summary

DETAILED ACTION

Election/Restriction

1. Applicants election of claims 1 - 28 for examination and cancellation of claims 29 - 35 is acknowledged.

Claim Rejections - 35 U.S.C. § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 9 - 13 and 21 are rejected under 112 second paragraph. The last paragraph of claim 9 is indefinite. For example, it is stated "voice packets generated from said one or more existing voice connections, and previously assigned to one jitter window, being maintained in the same jitter window in the selected upstream channel." In claim 21, second line, the phrase "one of" is twice repeated. In claim 10, "selecting an upstream channel" (line 2) is also repeated twice.

Claim Rejections - 35 U.S.C. § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1, 2, 4, 5, 7, 8, 18, 19, and 25 - 28 are rejected under 35 U.S.C. 103(a) as being obvious over applicants admitted prior art (hereinafter AAPA) in view of either one of: U.S. patent 6,324,184 to Hou et al, or U.S. patent 5,247,516 to Bernstein et al.

With regard to claim 1, AAPA teaches transmitting packets of information in a system that offers IP voice and data services. See page 3 lines 5 - 18. AAPA does not however teach establishing two non-overlapping "jitter windows" (as defined in applicants specification) in a frame for carrying voice packets. This is taught in ~~Hou et al in col 8, lines 63 - 65, and also in~~ Bernstein et al in the abstract, and shown in the figure below the abstract. It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided AAPA (IE, the DOCSIS 1.1 system to which it refers) with "jitter free windows" (as defined in, for example, page 13 line 8 of applicants specification) in light of the teachings of ~~either Hou or~~ Bernstein, in order to provide an efficient means of transporting the telephony information which, in addition to other things, helps prevent jitter.

With regard to the following claims (cl), see the pertinent portions as cited:
Cl 2: AAPA teaches data on page 6, lines 7+. Cl 4: coaxial: page 1, line 20 of AAPA. Cl 5: AAPA teaches carrying voice information as stated, and Hou/Bernstein teach the jitter windows, as stated. Cl 7: ~~Hou/~~Bernstein teach multiple partitions in the frame. Cl 8: the slots in Bernstein et al are of equal size, and it would be obvious to make them so in Hou et al as well. Cl 18: note the above, as well as the CM and CMTS taught in AAPA on page 3. Cl 19: see rejection of claim 2 above. Cl 25: see the reaction of claim 4 above. Cl 26: see rejection of claim 7. Cl 27: see

rejection of claim 8. With regard to claim 28, see the rejection of claim 1 above, and note the CMTS discussed on page 3 of AAPA.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being obvious over applicants admitted prior art (AAPA) in view of ~~either one of: U.S. patent 6,324,184 to Hou et al, or~~ U.S. patent 5,247,516 to Bernstein et al as applied above, and further in view of U.S. patent 4,914,650 to Sriram.

With regard to claim 6, AAPA/~~Hou et al or~~ Bernstein et al teach the invention as described above, but do not teach voice regions separated by a data region. This is taught in Sriram. See figure 11, and note the obviousness of combining AAPA/~~Hou et al or~~ Bernstein et al with Sriram in order to make effective use of the framing information space.

7. Claims 3 and 20 are rejected under 35 U.S.C. 103(a) as being obvious over applicants admitted prior art (hereinafter AAPA) in view of ~~either one of: U.S. patent 6,324,184 to Hou et al, or~~ U.S. patent 5,247,516 to Bernstein et al as applied above, and further in view of U.S. patent 5,400,044 to Thomas.

With regard to claims 3 and 20, AAPA/~~Hou et al or~~ Bernstein et al teach the invention as described above, but do not teach formulating the jitter windows to have a length of n/2 even number of time slots, or (n-1)/2, (n+1)/2 if odd. Dividing information into slots using these formulas is taught in Thomas. See column 9, lines 50+. It would have been obvious to have provided the jitter windows of AAPA/~~Hou or~~ Bernstein with lengths using these formulas, in

light of the teachings of Thomas, in order to produce packets that more effectively transport voice information in the system.

8. Claims 9 - 11, 13, 21, and 23 - 24 are rejected under 35 U.S.C. 103(a) as being obvious over AAPA in view of U.S. patent 6,510,162 to Fijolek et al and ~~either of U.S. patent 6,324,184 to Hou et al, or~~ U.S. patent 5,247,516 to Bernstein et al.

With regard to claim 9, AAPA teaches the invention as described above, including the assignment of time slots (page 4, lines 4+), but does not teach selecting an upstream channel with at least one idle time slot to accommodate a new voice connection *and* one or more existing voice connections. This is taught in Fijolek et al. See column 9 lines 25+ and also (especially) col 19, lines 10 - 20. It would have been obvious to have provided AAPA/~~Hou or~~ Bernstein with a means of selecting an upstream channel for accommodating new and existing voice connections, in light of the teachings of Fijolek et al, in order to provide an effective means for regulating the flow of telephony information. Cl 10: the number of idle time slots in a channel accommodating existing voice connections would make obvious having the same number of idle time slots in each jitter window in the said upstream channel, as it is obvious to apportion such means as this in one to one correspondence. Cl 11: first fit is taught in col 9, line 28 of Fijolek et al. Cl 13: constant bit rate is taught in col 8, line 50 of Hou. Cl 21: See rejection of claim 11. Cl 23: see the rejection of claims 18 and 9. Cl 24: see the rejection of claim 10 in combination with the rejection of claim 23.

9. Claims 12 is rejected under 35 U.S.C. 103(a) as being obvious over AAPA in view of U.S. patent 6,510,162 to Fijolek et al and ~~either of U.S. patent 6,324,184 to Hou et al, or~~ U.S. patent 5,247,516 to Bernstein et al as applied above, and further in view of U.S. patent 5,295,140 to Crisler et al.

With regard to claim 12, AAPA/Fijolek et al/~~Hou or~~ Bernstein teach the invention as described above, but do not teach assigning a time slot randomly. This is taught in Crisler et al. See col 6, lines 65+. This combination would render this claim obvious.

10. Claim 22 is rejected under 35 U.S.C. 103(a) as being obvious over applicants admitted prior art (AAPA) in view of ~~either one of U.S. patent 6,324,184 to Hou et al, or~~ U.S. patent 5,247,516 to Bernstein et al as applied to claim 18, and further in view of U.S. patent 5,295,140 to Crisler et al.

AAPA/~~Hou et al or~~ Bernstein teach the invention as described above, but do not teach randomly selecting a time slot. This is taught in Crisler, as described above. This combination would render this claim obvious.

11. Claims 14 and 16 are rejected under 35 U.S.C. 103(a) as being obvious over U.S. patent 6,510,162 to Fijolek et al.

Fijolek teaches the invention as described above (see col 19) and a data channel in col 17 line 38. Note also that upstream channels are assigned as taught in col 11 lines 56+, col 12 lines 45+. Although in col 19 *apparently* only 1 call channel is assigned, it is obvious to do it to more

than one call, especially since in col 15, lines 10+, more than one SID is described. With regard to claim 16, first fit is taught in col 9, line 28 of Fijolek et al.

12. Claim 15 is rejected under 35 U.S.C. 103(a) as being obvious over U.S. patent 6,510,162 to Fijolek et al in view of AAPA.

Fijolek et al teaches the invention as described above, but does not teach assigning time slots to the upstream channel. This is taught in AAPA, page 4, lines 4+ as mentioned above, and this combination would render claim 15 obvious.

13. Claim 17 is rejected under 35 U.S.C. 103(a) as being obvious over U.S. patent 6,510,162 to Fijolek and AAPA as applied to claim 15, and further in view of U.S. patent 5,295,140 to Crisler et al.

Fijolek/AAPA teach the invention as described above, but do not teach random selection of an idle time slot. Crisler et al teaches this in col 6, lines 65+, and this combination would render this claim obvious.

14. Claims 1, 18, and 28 are rejected under 35 U.S.C. 103(a) as being obvious over U.S. patent 6,510,162 to Fijolek et al in view of either one of: U.S. patent 6,324,184 to Hou et al, or U.S. patent 5,247,516 to Bernstein et al.

Fijolek et al teach a network offering IP voice and data services as is discussed above, but does not teach transmitting the information with the use of jitter windows in the frame. This is taught in both Hou and Bernstein as discussed above, and this combination would render this claim obvious. With regard to claims 18 and 28, see the above, and further note upstream

communication is discussed in col 11, lines 55+ and col 12 lines 45+ and col 19 lines 10+ of Fijolek et al.

Contact Information

14. Examiner Blount may be contacted at the Patent Office between the hours of 9:00 am to 5:30 P.M. Monday through Friday. His phone number is (703) 305-0319.

SB

6/24/03